


IN THE CLAIMS:

1. (original) A data storage system for transferring data between a host computer/server and a bank of disk drives through a system interface, such system interface comprising:




- a plurality of first directors coupled to the host computer/server;
- a plurality of second directors coupled to the bank of disk drives;
- a data transfer section coupled to the plurality of first directors and second directors;
- a messaging network coupled to the plurality of first directors and the plurality of second directors, such first and second directors controlling data transfer between the host computer and the bank of disk drives in response to messages passing between the directors through the messaging network as such data passes through the data transfer section; and

wherein each one of such messages transferred through the messaging network is associated with a descriptor, such descriptor having a command field indicating the one or ones of the directors which are to receive such message, such command field having a plurality of bits, each bit being associated with a corresponding one of the directors, one logic state of such bit indicating that such corresponding director is to receive the message and another logic state of such bit indicating that such corresponding director is not to receive such message.

2. (original) The data storage system recited in claim 1 wherein the message network transmits each message sequentially to a plurality of the directors.

3. (original) The data storage system recited in claim 2 wherein each one of the directors has a mask stored therein, such mask having a plurality of bits, each one of such bits of the mask being associated with a corresponding one of the directors, each one of the bits indicating the an availability or unavailability of the corresponding one of the directors.

4. (original) The data storage system recited in claim 3 wherein the message network compares the command field of a message to be transmitted with the mask and sequentially transmits the message to only those directors which are indicated by the mask as being available.



5. (original) A method for transferring data between a host computer/server and a bank of disk drives through a system interface, such system interface comprising: a plurality of first directors coupled to the host computer/server; a plurality of second directors coupled to the bank of disk drives; a data transfer section coupled to the plurality of first directors and second directors; and a messaging network coupled to the plurality of first directors and the plurality of second directors, such first and second directors controlling data transfer between the host computer and the bank of disk drives in response to messages passing between the directors through the messaging network as such data passes through the data transfer section; such method comprising:

associating with each one of such messages transferred through the message network, a descriptor, such descriptor having a command field indicating the one or ones of the directors which are to receive such message, such command field having a plurality of bits, each bit being associated with a corresponding one of the directors, one logic state of such bit indicating that such corresponding director is to receive the message and another logic state of such bit indicating that such corresponding director is not to receive such message.

6. (original) The method recited in claim 5 including transmitting each message sequentially to a plurality of the directors.

7. (original) The method recited in claim 6 including providing in each one of the directors a mask stored therein, such mask having a plurality of bits, each one of such bits of the mask being associated with a corresponding one of the directors, each one of the bits indicating the an availability or unavailability of the corresponding one of the directors.

8. (original) The data method recited in claim 7 wherein each one of the directors compares the command field for a message to be transmitted with the mask and sequentially transmits the message to only those directors which are indicated by the mask as being available.

9. (original) A data storage system for transferring data between a host computer/server and a bank of disk drives through a system interface, such system interface comprising:

a plurality of first directors coupled to the host computer/server;

a plurality of second directors coupled to the bank of disk drives;

a cache memory;

a data transfer section coupled to the plurality of first directors, the second directors, and the cache memory;

a messaging network coupled to the plurality of first directors and the plurality of second directors, such first and second directors controlling data transfer between the host computer and the bank of disk drives in response to messages passing between the directors through the messaging network as such data passes through the cache memory via the data transfer section; and

wherein each one of such messages transferred through the messaging network is associated with a descriptor, such descriptor having a command field indicating the one or ones of the directors which are to receive such message, such command field having a plurality of bits, each bit being associated with a corresponding one of the directors, one logic state of such bit indicating that such corresponding director is to receive the message and another logic state of such bit indicating that such corresponding director is not to receive such message.

10. (original) The data storage system recited in claim 9 wherein the message network transmits each message sequentially to a plurality of the directors.

11. (original) The data storage system recited in claim 10 wherein each one of the directors has a mask stored therein, such mask having a plurality of bits, each one of such bits of the mask being associated with a corresponding one of the directors, each one of the bits indicating the an availability or unavailability of the corresponding one of the directors.

12. (original) The data storage system recited in claim 11 wherein the message network compares the command field of a message to be transmitted with the mask and

sequentially transmits the message to only those directors which are indicated by the mask as being available.

13. (original) A method for transferring data between a host computer/server and a bank of disk drives through a system interface, such system interface comprising: a plurality of first directors coupled to the host computer/server; a plurality of second directors coupled to the bank of disk drives; a cache memory; a data transfer section coupled to the plurality of first directors, the second directors, and the cache memory; and a messaging network coupled to the plurality of first directors and the plurality of second directors, such first and second directors controlling data transfer between the host computer and the bank of disk drives in response to messages passing between the directors through the messaging network as such data passes through the cache memory via the data transfer section; such method comprising:

associating with each one of such messages transferred through the message network, a descriptor, such descriptor having a command field indicating the one or ones of the directors which are to receive such message, such command field having a plurality of bits, each bit being associated with a corresponding one of the directors, one logic state of such bit indicating that such corresponding director is to receive the message and another logic state of such bit indicating that such corresponding director is not to receive such message.

14. (original) The method recited in claim 13 including transmitting each message sequentially to a plurality of the directors.

15. (original) The method recited in claim 14 including providing in each one of the directors a mask stored therein, such mask having a plurality of bits, each one of such bits of the mask being associated with a corresponding one of the directors, each one of the bits indicating the an availability or unavailability of the corresponding one of the directors.

16. (original) The data method recited in claim 15 wherein each one of the directors compares the command field for a message to be transmitted with the mask and sequentially transmits the message to only those directors which are indicated by the mask as being available.